

(10) Patent No.: US 6,411,682 B1
(45) Date of Patent: Jun. 25, 2002

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|-------------|---------|--------------------|---------|
| 3,506,791 A | 4/1970 | Halaby | 174/50 |
| 3,614,328 A | 10/1971 | McNaughton et al. | |
| 3,627,955 A | 12/1971 | Stone | |
| 3,676,603 A | 7/1972 | Budrys et al. | 379/355 |

- (List continued on next page.)

- FOREIGN PATENT DOCUMENTS

- | | | |
|----|---------|---------|
| DE | 2542834 | 11/1976 |
| DE | 2522758 | 12/1976 |
| DE | 2929961 | 2/1981 |
| DE | 3411206 | 10/1985 |

- (List continued on next page.)

- ## OTHER PUBLICATIONS

- CCITT Paper. "Universal Personal Telecommunication Definition and Attributes" Oct. 1989.
R.M. Fuller Co. Telexpand System 1. "Advanced Operations Manual" Appen. J. 1985.
Excerpt from Aspect Call Center "Workstation User's Guide" Release 1.0 pp. 110-119, 1987, with excerpts from a Release 2.0 of "Workstation User's Guide" pp. 78, 89-91 May 1988.

- (List continued on next page.)

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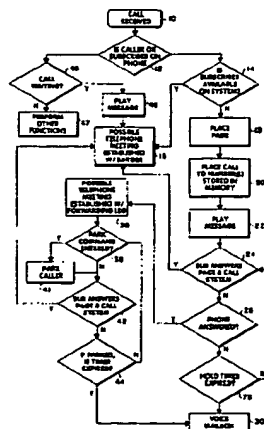
(57) **ABSTRACT**

The invention provides a method and an apparatus for placing a caller into telecommunication with a subscriber. A call from the caller, directed to the subscriber, is detected and, in response thereto, a page is initiated to the subscriber and at the same time a forward leg call is initiated to a stored telephone address. If the call on the forward leg is answered, the party answering that call is placed in telecommunication with the caller. A call from the subscriber is also detected the subscriber is placed in telecommunication with the caller together with any party on a forward leg call.

U.S. PATENT DOCUMENTS

32 Claims, 19 Drawing Sheets

**Microfiche Appendix Included
(2 Microfiche, 157 Pages)**





US005838779A

United States Patent [19][11] **Patent Number:** 5,838,779

Fuller et al.

[45] **Date of Patent:** *Nov. 17, 1998**[54] ADJUNCT CONTROLLER FOR A TELEPHONE SYSTEM**

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[*] **Notice:** The term of this patent shall not extend
beyond the expiration date of Pat. No.
5,375,161.

[21] **Appl. No.:** 429,908

[22] **Filed:** Apr. 27, 1995

Related U.S. Application Data

[62] Division of Ser. No. 249,453, May 26, 1994, Pat. No. 5,673,299, which is a division of Ser. No. 480,242, Feb. 15, 1990, Pat. No. 5,375,161, which is a continuation-in-part of Ser. No. 439,601, Nov. 21, 1989, abandoned, which is a continuation-in-part of Ser. No. 841,931, Mar. 20, 1986, Pat. No. 4,893,335, which is a continuation-in-part of Ser. No. 650,821, Sep. 14, 1984, abandoned.

[51] **Int. Cl.⁶** H04M 3/42; H04M 1/00;
H04M 1/56; H04M 15/06

[52] **U.S. Cl.** 379/211; 379/89; 379/156;
379/142; 455/417

[58] **Field of Search** 379/156, 127,
379/142, 165, 202, 210, 211, 212, 245,
67, 88, 89, 93, 94, 93.01, 93.14; 370/259,
271; 455/415, 417

[56] References Cited**U.S. PATENT DOCUMENTS**

3,676,603 7/1972 Budrys et al. 379/217
3,739,329 6/1973 Lester 379/201
3,854,013 12/1974 Altenburger et al. 379/211

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

0046623 3/1982 European Pat. Off. .

0152908 8/1985 European Pat. Off. .
0216515 9/1985 European Pat. Off. .
0216381 4/1987 European Pat. Off. .
0330441 8/1989 European Pat. Off. .
2541020 2/1983 France .
2929961 2/1981 Germany .
3411206 10/1985 Germany .
2198910 6/1988 United Kingdom .
8304451 12/1983 WIPO .

OTHER PUBLICATIONS

Applied Voice Technology product reference guide for "Call Xpress 200 and 400 Series", Feb. 1989.

Applied Voice Technology user guide for "Call Xpress", Nov. 1989.

"SR 19000 PBX Digital Private Branch Exchange Product Reference Guide"; Solid State Systems, Inc., Nov. 1987.

(NEC Corp.) Patent Abstracts of Japan, vol. 13, No. 435.

(NEC Corp.) Patent Abstracts of Japan, vol. 12, No. 414.

(Fujitsu Ltd.) Patent Abstracts of Japan, vol. 5, No. 70.

(Fujitsu KK) Patent Abstracts of Japan, vol. 7, No. 288.

IBM Technical Disclosure Bulletin vol. 26, No. 5, D. Zeheb
"Secretarial Branch Exchange".

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[57] ABSTRACT

A telephone system for providing enhanced telephone services. The system includes a telephone switch servicing a plurality of telephone subscribers via communication facilities of the switch, which facilities handle both voice and data communications. A telephone switch controller is coupled to the switch for controlling the switch to provide an enhanced service not otherwise available in the switch. The controller communicates with the switch using data in the form of switch functions. The controller includes a memory for storing a sequence of switch functions, which sequence defines the enhanced service. The controller communicates a prompt to a caller in response to a telephone call placed by the caller to a predetermined telephone address associated with a subscriber and communicates the sequence of switch functions stored in the memory to the switching system in response to a command received from the caller to provide the enhanced service.

14 Claims, 55 Drawing Sheets